UNITED STATES PATENT AND TRADEMARK OFFICE

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10/815,405	03/31/2004	Guy Riddle	079171.0104	7944

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ART UNIT	PAPER NUMBER
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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2009*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7,9-25,28-36,38 and 41-58* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1, 2, 4, 5, 7, 24, 25, 28-36, 38 and 41- 47* is/are allowed.

6)☒ Claim(s) *9-23 and 48-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *3/31/2004, 6/9/2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 4 is objected to because of the following informalities: Lines 1-2, "wherein wherein" should be changed to –wherein--   to eliminate duplicate words. Appropriate correction is required.

2.   Claim 17 is objected to because of the following informalities: Line 4, "an" should be changed to –a--. Appropriate correction is required.

3.   Claim 24 is objected to because of the following informalities: Line 29, "mess" should be changed to –message--. Appropriate correction is required.

4.   Claim 34 is objected to because of the following informalities: Lines 5-9, "transmitted transmitted" should be changed to – transmitted-- to eliminate duplicate words. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (US20040264395) in view of Philippou et al. (US PAT 6385648, hereinafter Philippou) and Riddle (US PAT PUB 2003/0110276).

Regarding claim 9, Rao disclose a method facilitating remote deployment and configuration of a network device physically installed on a first network, wherein the network device is initially unconfigured (see paragraph 32 unconfiugrd wireless device) and operative to intercept configuration messages (see paragraph 33 predetermined messge), comprising: composing a configuration message including configuration information corresponding to a network device (see paragraph 33 predetermined messge); and the configuration information comprises an IP address for a network management system (paragraph 0046).

Rao does not explicitly teach transmitting from a second network a configuration message to the first network, wherein the network device is disposed on the communications path between the second network and the first network and wherein the configuration information comprises an internet protocol (IP) address for the network device.

Philippou in the same field of endeavor teaches a network device (figure 2, box 205) operating in an unconfigured network address mode (column 3 liens 6-17, in one embodiment, box 205 is a network switch. In the embodiment illustrated in FIG. 2, box 205 is recognized in network 211 using network identifier 221. In an embodiment where TCP/IP communications protocols are used for communications within network 211, network identifier 221 includes an IP address. As also depicted in the embodiment illustrated in FIG. 2, box 205 also includes a subnet mask 223 and a default gateway 225, which are utilized for network communications. In addition to network identifier 221, box 225 also includes a unique identifier 227. In one embodiment, unique identifier

227 includes a serial number of box 205) and including an internet protocol (IP) address

for the network device (column 5, lines 53-56, therefore, it will be known to box 205 that

when the initialization message is received, the network identifier 221, subnet mask 223

and default gateway 225 included in the initialization message are intended for box

205), wherein the network device is disposed on a communications path (Figure 2, path

between network 211 and network 215) between a first network (Figure 2, network 211)

and a second network (Figure 2, network 215) and wherein configuration message is

transmitted from a remote device (figure 2, configuration utility) on the first network

(Figure 2, network 211) and addressed to a destination host (figure 2, here destination

host being interpreted as the box 205, having message addressed with elements 221,

223, 225 and 227) on the second network (Figure 2, network 215); upon detection of the

configuration message, configuring the network device with the IP address for the

network device information in the configuration message; and switching the network

device to a configured mode (column 5 lnes 56-65, in one embodiment, after box 205

receives the initialization message broadcast from configuration utility 231, box 205

updates its values for network identifier 221, subnet mask 223 and default gateway 225.

Once these values of box 205 have been updated, one embodiment of box 205 sends a

second acknowledgement directed to configuration utility 231 over network 211 to

indicate that its network identifier 221, subnet mask 223 and default gateway 225

settings have been initialized).

Thus, it would have been obvious to one of ordinary skill in the art at the time of

the invention to incorporate in Rao's system/method the steps of transmitting from a

second network a configuration message to the first network, wherein the network device is disposed on the communications path between the second network and the first network and wherein the configuration information comprises an internet protocol (IP) address for the network device as suggested by Philippou. The motivation is that (as suggested by Philippou, columns 1-2 lines 54-17) such method streamlines addition of new devices in network by avoiding situations where more than one box is added to the network, the network administrator must separately initialize the network identifier of each box; thus implementing an efficient remote network management and configuration process. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Rao and Philippou do not explicitly teach message being a null service type Resource Reservation (RSVP) message and device being null-service-enabled network device.

Riddle in the same or similar field of endeavor teaches message being a null service type Resource Reservation (RSVP) message and device being null-service-enabled network device (paragraph 0050-0051).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao and Philippou's system/method the steps of message being a null service type Resource Reservation (RSVP) message and device being null-service-enabled network device as suggested by Riddle. The motivation is

that (as suggested by Riddle, paragraphs 0050) probe requests and responses can be implemented using any suitable protocol and technology; in one embodiment, the present invention takes advantage of existing Resource ReSerVation Protocol (RSVP) signaling technologies to transmit probe requests and responses. Specifically, the present invention extends existing RSVP protocols to transmit probe requests and responses. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 10, Rao teaches further comprising repeatedly transmitting the configuration message until a response to the configuration message is received from the network device (see paragraph 33 repeatedly broadcasts a predetermined message).

Regarding claim 11, Rao teaches the configuration information comprises information sufficient for the network device to establish a network connection with the network management system (see paragraph 37 automatic configuration of the wireless network client and paragraph 48).

Regarding claim 12, Rao teaches the configuration message (see paragraphs 45-46 broadcast message), a sub- network mask for the first network (see paragraphs 45-46 subnet), and the network address of the gateway router corresponding to the first network (see paragraphs 45-46 respective IP address).

7.   Claims 48, 49, 54, 55, 57 and 58 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Rao (US20040264395) in view of Aboba et al. (US PAT PUB

2005/0286722, hereinafter Aboba) and Pohlmann et al. (US PAT 6366926, hereinafter

Pohlmann).

Regarding claim 48, Rao teaches method facilitating remote, automated

deployment of a network device on a network (see paragraphs 9-11), comprising

establishing, in an unconfigured mode (see paragraph 32 unconfigured wireless

device), a connection with a remote device for configuration information (see paragraph

33 configured computing device); providing, during the connection, a hardware profile of

a network device (see paragraph 0048); receiving configuration information (see figure

5 ref s502 and s503) from the remote device (see paragraphs 42-48) based on the

hardware profile (see paragraphs 42-48). In regards to hardware profile, Rao further

teaches the configuration announcement message from the wireless network client 2 is

a device discovery announcement in according with a device discovery protocol, and

preferably includes a state variable indicating that wireless network client 2 is a new

device on local-network 5 and including an address (i.e. address of a hardware is a

hardware profile i.e. the address of the device is part of it's hardware profile) of wireless

network client 2. Further more, device discovery protocol inherently carries MAC

address of the device in messages, thus MAC address being a hardware profile

satisfies the cited limitation. As such, inherently, when using device discovery protocol,

messages contain MAC address of the devices communicating with each other.

Rao implicitly teaches hardware profile in device discovery announcement but does not explicitly teach hardware profile including hardware architecture in device discovery announcement.

Aboba in the same or similar field of endeavor teaches hardware profile in device discovery announcement (paragraph 0004, the announcements and discovery responses identify the type of device (i.e. hardware profile) and its capabilities (interpreted as hardware architecture), as well as its presence on the network).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao's system/method, the steps of hardware profile including hardware architecture in device discovery announcement as suggested by Aboba, The motivation is that such method enables proper identification of new devices in terms of it's type and capabilities to establish seamless communication to build a reliable network. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Rao and Aboba do not explicitly teach operating system being part of the hardware information.

Pohlmann in the same or similar field of endeavor teaches operating system being part of the hardware information (column 13 lines 41-55).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao and Aboba's system/method, the steps of system

being part of the hardware information as suggested by Pohlmann. The motivation is that such method enables proper compatible software of new devices in terms of it's OS type and version to establish seamless communication to build a reliable network. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 54, Rao teaches the establishing step is performed in response to the receipt of a configuration message transmitted by the remote device (see Rao figure 5 ref s510 acceptable access point determined).

Regarding claim 55, Rao teaches the configuration message is addressed to the broadcast address of the network (see Rao paragraph 46).

Regarding claim 57, Rao teaches a second network device connected to the network is operative to broadcast the network address of the remote device (see Rao paragraph 45-48).

Regarding claim 58, Rao teaches the network comprises a second network (see paragraph 46 and it is inherent for the networking system to include second/plurality of client devices) device operative to transmit the network address of the remote device in response to a request (see paragraph 46); and wherein the method further comprises broadcasting a request for the network address of the remote device (see paragraph 47).

8.   Claims 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Rao, Philippou and Riddle as applied to claim 9 above, and further in view of Ylonen et

al., hereinafter Ylonen, (US2002/0191548).

Regarding claims 13-23, Rao, Philippou and Riddle disclose all the subject

matter of the claimed invention 9, with the exception of configuration information

includes: (claim 13) the configuration information further includes a cryptographic digest

of the configuration information. (claim 14) the configuration information is encrypted

with an encryption key. (claim .15) the encryption key comprises a secret string of text.

(claim 16) the encryption key further comprises a random number. (claim 17 the

encryption key further comprises the network address of a network node disposed in

first network and known to network management system. (claim 18) the network device

is pre-configured with the secret string of text. (claim 19) the encryption key is a

symmetric encryption key. (claim 20) the encryption key is a private encryption key and

wherein the configuration information is encrypted using an asymmetric encryption

algorithm. (claim 21) the network device is preconfigured with an encryption key

corresponding to the private encryption key. (claim 22) the symmetric encryption key is

encrypted using an asymmetric o. encryption algorithm with a private encryption key.

(claim 23) the network device is preconfigured with an encryption key corresponding to

the private encryption key.

Ylonen et al. from the same or similar fields of endeavor teaches the use of

encryption and decryption of configuration information; network address of a network

node disposed in network and known to network management system (see Ylonen et al.

paragraph 50, 52, 63, 69, 70 and 217) and public and private key (see Ylonen et al.

paragraph 52 and 63) and key material stored in the secure storage deice (see Ylonen

et al. paragraph 88).

Thus, it would have been obvious to one of ordinary skill in the art at the time of

the invention to use the encryption algorithm as taught by Ylonen et al. in the teaching

of Rao, Philippou and Riddle in order to provide cryptographic authentication and

confidentiality of traffic between two communicating network nodes (see Ylonen et al.

paragraph 7). Known work in one field of endeavor may prompt variations of it for use in

either the same field or a different one based on design incentives or other market

forces/market place incentives if the variations are predictable to one of ordinary skill in

the art.

9.   Claims 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Rao, Aboba and Pohlmann as applied ot claims 48 above and further in view of Nomura

et al., hereinafter Nomura, (US6930984).

Regarding claims 51-53, Rao teaches (claim 51) the configuration information

received from the remote device (see paragraph 33 predetermined message) • (claim

53) the subnetworks accessible to the network device (see paragraph 45), and Rao,

Aboba and Pohlmann disclose all the subject matter of the claimed invention with the

exception of: (claim 51) gathering network topology information characterizing the

topology of the network to which the network device is attached; and (claim 51)

providing the network topology information to the remote device; and is based on the

hardware profile and the network topology information (see column 15 line 10-25). (claim 52) the network topology information comprises information concerning at least one host neighboring the network device (see column 15 line 15). (claim 53) the network topology information comprises

Nomura from the same or similar fields of endeavor teaches the use of topology information (see Normura col. 15 lines 10-25), adjacent router (see Normura col. 15 line 13-15 corresponds to neighboring the network device).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the topology information and adjacency of router as taught by Normura in the configuration of wireless network list of Rao, Aboba and Pohlmann in order to increase processing capability of each network device (see Normura et al. column 3 line 3). Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

10.   Claims 50 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, Aboba and Pohlmann as applied to claim 48 above and further in view of Ylonen et al., hereinafter Ylonen, (US2002/0191548).

Regarding claims 50, and 56, Rao discloses all the subject matter of the claimed invention with the exception of DHCP server operative to provide the network address

of the remote device in afield associated with a DHCP response transmitted to the network device.

Ylonen et al. from the same or similar fields of endeavor teaches the use of DHCP configure devices (see Ylonen et al. paragraph 28, 56, 59 and 75).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use DHCP configure devices as taught by Ylonen et al. in the teachings of Rao, Aboba and Pohlmann in order to obtain devices configuration information (see Ylonen et al. paragraph 27). Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Allowable Subject Matter

11.   Claims 1, 2, 4, 5, 7, 24, 25, 28-36, 38 and 41- 47 are allowed.

Response to Arguments

12.   Applicant's arguments see page 14 of the Remarks section, filed 2/11/2009, with respect to the 35 USC 112 rejections have been fully considered and are persuasive. The 35 USC 112 rejections have been withdrawn.

Claims 1, 24, 34, 36 and 41:

Applicant has amended claims 1, 24, 34, 36 and 41, and Applicant's argument
(page 16) in regards to claims 1, 24, 34, 36 and 41 are persuasive. As such, the prior
art rejection to claims 1, 24, 34, 36 and 41 has been withdrawn.

All the rejections to claims depending from claims 1, 24, 34, 36 and 41 are also
respectively withdrawn.

Claim 9 and 48:

Applicant's amendment necessitated a new ground of rejections to claims 9 and
48. As such, any further response to Applicant's argument (see page 17 for claim 9 and
page 18 for claim 48 of the remark section) is moot.

All the dependent claims depending from 9 and 48 are similarly rejected based
on new ground of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to SALMAN AHMED whose telephone number is
(571)272-8307. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for
the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Salman Ahmed/

Examiner, Art Unit 2419